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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,786	02/12/2001	Kyung-Ju Choi	00-6AAF (DN7814)	6972

7590 01/08/2003

Polster, Lieder, Woodruff & Lucchesi
763 South New Ballas Road, Suite 160
St. Louis, MO 63141

EXAMINER

CECIL, TERRY K

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 01/08/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/781,786	Applicant(s) CHOI, KYUNG-JU	
	Examiner Mr. Terry K. Cecil	Art Unit 1723	

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-44 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-18, drawn to a filter media, classified in class 210, subclass 488.
 - II. Claims 19-27, drawn to a method of manufacturing a filter media, classified in class 156, subclass 62.6.
- Claims 28-44 link inventions I and II. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claims 28-44. Upon the allowance of the linking claims, the restriction requirement as to the linked inventions shall be withdrawn and any claims depending from or otherwise including all the limitations of the allowable linking claims will be entitled to examination in the instant application. Applicants are advised that if any such claims depending from or including all the limitations of the allowable linking claims is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be

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made by another and materially different process (MPEP § 806.05(f)). In the instant case the filter media of Invention I does not require the step of collecting a measured weight of fibers in a mixer-blender zone of Invention II.

2. Restriction for examination purposes is proper because of the reasons given above and also because (i) they have acquired a separate status in the art as shown by their different classification, (ii) the search required for the respective groups is not necessarily required by each of the other groups, and (iii) their subject matter is recognized as divergent.

3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Examiner Notes

4. The examiner notes the following:

- Applicant has amended the claims to define porosity as “the ratio of pore volume to the total volume of *media*” (the volume of all the layers); however, page 14, line 14 indicated by the applicant (page 2 of the amendment filed 10-14-2002) defines porosity as “the ratio of pore volume to the total volume of the *medium*” (the volume of a single layer)¹. The only place in the specification where the definition of porosity includes the total volume of *media* is the last paragraph of page 11 which is used only to explain the difference between the predicted and

¹ Notice that the formulas on page 14 have a separate porosity value “ ϵ ” for each layer.

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experimental average pore size values of the media. It is further noted that some of the claims (e.g. claims 18 and 27) now include two different definitions for porosity.

- In the methods for manufacturing the multi-layered filter media (e.g. claim 19), applicant includes the step of collecting a first independent measured thickness weight of chopped fibers in a mixer-blender zone, wherein the chopped fibers having a selected denier and *pore size*.

However, it is unclear how the loose fibers of the mixer-blender zone can have a *pore size* before the fibers have been processed and bonded together into a medium (or media) layer in the subsequent carding, heating, and calendaring zones (as shown in figures 1A and 1B).

- The examiner acknowledges the applicants' suggestion for an interview in the examiner's office. The examiner invites the applicant to call to request a date and time for a personal interview to discuss the above-mentioned issues and the alleged novelty of the claims.

5. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (703)305-0079 for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:00a to 4:30p, on at least four days during the week M-F.
- The group receptionist can be reached at (703)308-0661 for inquiries of a general nature or those relating to the status of this or proceeding applications.
- Wanda Walker, the examiner's supervisor, can be reached at (703)308-0457 if attempts to reach the examiner are unsuccessful.
- Fax numbers for this art unit are as follows:
 - i. (703)872-9310 for *official* faxes (i.e. faxes to be entered as part of the file history) that are not after-final; and
 - ii. (703)872-9311 if after-final.

TKC
January 7, 2003

Examiner Terry K Cecil
AU. 1723